

SEQUENCE LISTING

<110> Medical Research Council

SISSA - Scuola Superiore Internazionale di Studi Avanzati

Cattaneo, Antonino

Maritan, Amos

Visintin, Michela

Rabbitts, Terrence H

Settanni, Giovanni

<120> Intracellular antibodies

<130> 18396/2272

<140> Continuation of PCT/GB02/03512

<141> 2004-02-03

<150> PCT/GB02/03512

<151> 2002-08-01

<150> GB 0119004.0

<151> 2001-08-03

<150> GB 0121577.1

<151> 2001-09-06

<150> GB 0200928.0

<151> 2002-01-16

<150> GB 0203569.9

<151> 2002-02-14

<150> IT RM2001A000633

<151> 2001-10-25

<160> 124

<170> PatentIn version 3.1

<210> 1

<211> 110

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<400> 1

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Val Ile Ser Gly Lys Thr Asp Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Arg Gly Ser Leu Ser Tyr Tyr Tyr Tyr Tyr Pro
100 105 110

<210> 2

<211> 101

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<400> 2

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Leu Val Ser Ile
20 25 30

Ser Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys
35 40 45

Leu Leu Ile Tyr Ala Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg
50 55 60

Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser
65 70 75 80

Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser
85 90 95

Leu Pro Gln Trp Thr
100

<210> 3

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<400> 3

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Val Ile Ser Gly Asp Gly Ser Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 4

<211> 108

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<400> 4

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Tyr Tyr

20

25

30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Thr Pro Arg
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 5

<211> 123

<212> PRT

<213> Homo sapiens

<400> 5

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Glu Ala Ser Gly Phe Thr Phe Ser Thr Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asp Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp Arg Trp His Tyr Gly Ser Gly Ser Pro Ser Met Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 6

<211> 125

<212> PRT

<213> Homo sapiens

<400> 6

Gln Leu Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Cys
20 25 30

Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Thr Ser Ile Ser Asn Asp Gly Ser Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ser Arg Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Ala Ala Ser Ser Gly Trp Pro Ser Thr Arg Asn Ser Glu Val
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 7

<211> 121

<212> PRT

<213> Homo sapiens

<400> 7

Gln Val Gln Leu Leu Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Ser
20 25 30

Ala Ser His Trp Ala Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ala Ile Ser Gly Ser Gly Ser Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Asp Gly Tyr Ser Tyr Gly Ser Pro Asp Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 8

<211> 118

<212> PRT

<213> Homo sapiens

<400> 8

Gln Val Gln Leu Leu Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val
35 40 45

Ser Ala Ile Ser Gly Asn Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Val Arg Gly Asp Gly Tyr Asn Ser Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 9

<211> 117

<212> PRT

<213> Homo sapiens

<400> 9

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Asp Gly Tyr Asn Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 10

<211> 119

<212> PRT

<213> Homo sapiens

<400> 10

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ala Ile Ser Gly Ser Gly Gly Gly Thr Asp Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Arg Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ser Arg Gly Gly Glu Val Val Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser

115

<210> 11

<211> 122

<212> PRT

<213> Homo sapiens

<400> 11

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Asn Ile Lys Gln Asp Gly Ser Glu Thr Tyr Val Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ser Tyr Ser Ser Gly Trp Tyr Phe His Ser Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 12

<211> 120

<212> PRT

<213> Homo sapiens

<400> 12

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Arg Gly Val Arg Arg Glu Lys Phe Glu Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 13

<211> 126

<212> PRT

<213> Homo sapiens

<400> 13

Gln Val Gln Leu Val Glu Ser Gly Gly Ala Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Asp Leu Ala Val Pro Arg Val Arg Gly Val Ile Ile Pro Glu
100 105 110

Ser Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 14

<211> 119

<212> PRT

<213> Homo sapiens

<400> 14

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Ser Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Gly Pro Asn Trp Ala His Phe Asp Phe Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 15

<211> 118

<212> PRT

<213> Homo sapiens

<400> 15

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
 20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ile Ile Tyr Ser Gly Gly Ser Thr Thr Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Val Arg Ser Ala Ala Glu Leu Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Leu Val Thr Val Ser Ser
 115

<210> 16

<211> 121

<212> PRT

<213> Homo sapiens

<400> 16

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ala Leu Phe
65 70 75 80

Leu Gln Met Asp Ser Leu Arg Ala Glu Asp Thr Ala Val Phe Tyr Cys
85 90 95

Ala Lys Gly Gly Pro Arg Thr Thr Leu Thr Thr Ala Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 17

<211> 118

<212> PRT

<213> Homo sapiens

<400> 17

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Glu Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr

20

25

30

Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Gly Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr His Cys
85 90 95

Ala Glu Gly Asn Thr Gln Phe Gln His Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 18

<211> 117

<212> PRT

<213> Homo sapiens

<400> 18

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Ala Ser Pro Leu His Phe Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 19

<211> 124

<212> PRT

<213> Homo sapiens

<400> 19

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe Thr Phe Asn Asn Tyr
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Val Ile His Asn Asp Gly Ser Thr Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ile Leu Glu Ser Gly Gly Ala Val Ala Gly Phe Gly Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 20

<211> 121

<212> PRT

<213> Homo sapiens

<400> 20

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Val Ser Gly Tyr
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Phe Ile Arg Lys Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asn Arg Gly Arg Ser Tyr Ser Met Glu Ser Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 21

<211> 119

<212> PRT

<213> Homo sapiens

<400> 21

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Phe Ile Arg Asn Asp Gly Ser Asn Glu Tyr Tyr Val Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Gly Arg Arg Ser Trp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 22

<211> 124

<212> PRT

<213> Homo sapiens

<400> 22

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
 20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val

50

55

60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Ser Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Leu Thr Tyr Tyr Tyr Gly Ser Gly Ser Ser His Leu Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 23

<211> 108

<212> PRT

<213> Homo sapiens

<400> 23

Gln Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
1 5 10 15

Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala
20 25 30

Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Leu Leu Val Ile Tyr
35 40 45

Gly Glu Asn Asn Gln Pro Ser Gly Ile Pro Phe Ser Gly Ser Ser Ser
50 55 60

Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu
65 70 75 80

Ala Asp Tyr Tyr Cys His Ser Arg Asp Ser Ser Gly Thr His Leu Arg
85 90 95

Val Phe Gly Gln Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 24

<211> 108

<212> PRT

<213> Homo sapiens

<400> 24

Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
1 5 10 15

Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser
20 25 30

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Leu Leu Val Ile Tyr Gly
35 40 45

Lys Asn Ile Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Thr
50 55 60

Ser Gly Asn Ser Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp
65 70 75 80

Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Arg Thr Gly Asn His Glu
85 90 95

Glu Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 25

<211> 108

<212> PRT

<213> Homo sapiens

<400> 25

Asp Ile Val Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Ser Tyr Tyr Cys Gln Lys Leu Asn Ser Tyr Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 26

<211> 109

<212> PRT

<213> Homo sapiens

<400> 26

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Ala Cys Arg Ala Ser Arg Asp Ile Arg Asn Asp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Ser Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ser Tyr Ser Pro
85 90 95

Trp Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
100 105

<210> 27

<211> 115

<212> PRT

<213> Homo sapiens

<400> 27

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Asn Trp Tyr Gln Gln Lys Pro Gly
35 40 45

Gln Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly
50 55 60

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
65 70 75 80

Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln
85 90 95

Gln Tyr Tyr Ser Thr Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu
100 105 110

Ile Lys Arg
115

<210> 28

<211> 108

<212> PRT

<213> Homo sapiens

<400> 28

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Thr Thr Pro Arg
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 29

<211> 109

<212> PRT

<213> Homo sapiens

<400> 29

Glu Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Ser Gly Lys Ala Pro Lys Leu Leu Ile

35

40

45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Asp Asp Phe Ala Thr Tyr Phe Cys Gln Gln Tyr Lys Ser Ser Ser Pro
85 90 95

Trp Thr Ser Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 30

<211> 110

<212> PRT

<213> Homo sapiens

<400> 30

Asn Phe Met Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
1 5 10 15

Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala
20 25 30

Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Thr Val Ile Tyr
35 40 45

Gly Glu Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
50 55 60

Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu
65 70 75 80

Asp Glu Ala Asp Tyr Tyr Cys His Ser Arg Asp Ser Ser Gly Thr His
85 90 95

Leu Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 31

<211> 108

<212> PRT

<213> Homo sapiens

<400> 31

Asn Phe Met Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
1 5 10 15

Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Phe Ala
20 25 30

Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Leu Ile Tyr
35 40 45

Gly Lys Asp Lys Arg Pro Ser Trp Thr Pro Asp Arg Phe Ser Val Ser
50 55 60

Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu
65 70 75 80

Asp Phe Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Val Thr Cys
85 90 95

Val Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 32

<211> 108

<212> PRT

<213> Homo sapiens

<400> 32

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Arg Ala Ser Arg Ala Ile Ala Lys Tyr
 20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Pro Leu Ile
 35 40 45

Tyr Gly Ala Ser Thr Leu Gln Asn Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ala His Ser Phe Pro Pro
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 33

<211> 108

<212> PRT

<213> Homo sapiens

<400> 33

Glu Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Ile Ser Thr Tyr
 20 25 30

Leu Asn Trp Tyr Gln Glu Lys Pro Gly Lys Ala Pro Lys Leu Leu Val
 35 40 45

Tyr Asp Ala Ser Thr Leu His Arg Gly Ala Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Thr Pro Arg
85 90 95

Thr Phe Gly Gly Leu Thr Lys Val Glu Ile Lys Arg
100 105

<210> 34

<211> 111

<212> PRT

<213> Homo sapiens

<400> 34

Asn Phe Met Leu Thr Gln Pro Arg Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Val Thr Ile Ser Cys Thr Gly Thr Ser Arg Asp Val Gly Ala Tyr
20 25 30

Asn His Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Glu Val Ser Lys Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Ser Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Ser Ser
85 90 95

Ser Thr Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 35

<211> 108

<212> PRT

<213> Homo sapiens

<400> 35

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Asn Tyr Ser Thr Pro Arg
85 90 95

Thr Phe Gly Gln Gly Pro Lys Val Asp Ile Asn Arg
100 105

<210> 36

<211> 108

<212> PRT

<213> Homo sapiens

<400> 36

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly

50

55

60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Thr Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ser Pro Arg
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 37

<211> 110

<212> PRT

<213> Homo sapiens

<400> 37

Gln Ser Val Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
1 5 10 15

Thr Val Lys Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala
20 25 30

Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Thr Val Ile Tyr
35 40 45

Gly Glu Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
50 55 60

Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu
65 70 75 80

Asp Glu Ala Asp Tyr Tyr Cys His Ser Arg Asp Ser Ser Gly Thr His
85 90 95

Leu Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 38

<211> 108

<212> PRT

<213> Homo sapiens

<400> 38

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Thr Asn Ser Ser Pro Arg
85 90 95

Thr Ser Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 39

<211> 108

<212> PRT

<213> Homo sapiens

<400> 39

Glu Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
 35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Ala Tyr Tyr Cys Gln Gln Ser Tyr Arg Thr Pro Arg
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 40

<211> 108

<212> PRT

<213> Homo sapiens

<400> 40

Asp Ile Gln Met Thr Gln Ser Pro Ser Ala Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Ala Asn Tyr
 20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Pro Pro Lys Leu Leu Ile
 35 40 45

Tyr Val Ala Ser Asn Leu Pro Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Thr Thr Pro Arg
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 41

<211> 132

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<220>

<221> MISC_FEATURE

<222> 5, 6, 9, 11, 13, 16, 30, 31, 33, 35, 39, 51..53, 55
, 58..62

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 74, 75, 79, 80, 82..84, 88, 89, 97, 99, 101, 104..110, 123, 124

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 36, 37, 56, 57, 111..121

<223> Xaa may be present or absent

<400> 41

Gln Val Gln Leu Xaa Xaa Ser Gly Xaa Gly Xaa Val Xaa Pro Gly Xaa
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Xaa Xaa Tyr
20 25 30

Xaa Met Xaa Xaa Xaa Trp Xaa Arg Gln Ala Pro Gly Lys Gly Leu Glu

35	40	45
Trp Val Xaa Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Tyr		
50	55	60
Ala Asp Ser Val Lys Gly Arg Phe Thr Xaa Xaa Arg Asp Asn Xaa Xaa		
65	70	75
Asn Xaa Xaa Xaa Leu Gln Met Xaa Xaa Leu Arg Ala Glu Asp Thr Ala		
	85	90
		95
Xaa Tyr Xaa Cys Ala Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa		
	100	105
		110
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa Gly Thr Leu Val		
	115	120
		125
Thr Val Ser Ser		
130		

<210> 42

<211> 115

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<220>

<221> MISC_FEATURE

<222> 1..4, 6, 9, 10, 12, 13, 15, 17, 19, 22, 24, 25, 27, 34..38, 44

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 48, 49, 51, 52, 55, 56, 59..61, 66, 68, 76, 82, 83, 85..87

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 89, 91, 93, 95..101, 108..113

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 28..33, 102..107

<223> Xaa may be present or absent

<400> 42

Xaa Xaa Xaa Xaa Thr Xaa Ser Pro Xaa Xaa Leu Xaa Xaa Ser Xaa Gly
1 5 10 15

Xaa Arg Xaa Thr Ile Xaa Cys Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Leu Ala Trp Tyr Gln Xaa Lys Pro Gly Xaa
35 40 45

Xaa Pro Xaa Xaa Leu Ile Xaa Xaa Ala Ser Xaa Xaa Xaa Ser Gly Val
50 55 60

Pro Xaa Arg Xaa Ser Gly Ser Gly Ser Gly Thr Xaa Phe Thr Leu Thr
65 70 75 80

Ile Xaa Xaa Leu Xaa Xaa Xaa Asp Xaa Ala Xaa Tyr Xaa Cys Xaa Xaa
85 90 95

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
100 105 110

Xaa Thr Lys
115

<210> 43

<211> 125

<212> PRT

<213> Homo sapiens

<400> 43

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ala Gln Pro
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
20 25 30

Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ser Ala Ile Ser Gly Ser Gly Gly Arg Thr Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Met Ser Arg Asp Asn Ser Lys Asn Thr
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
85 90 95

Tyr Cys Ala Lys Asn Arg Gly Asp Gly Glu Ala Gln Tyr Trp Tyr Phe
100 105 110

Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 44

<211> 123

<212> PRT

<213> Homo sapiens

<400> 44

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Leu Glu Val Lys Lys Pro
1 5 10 15

Gly Gly Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser
20 25 30

Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
35 40 45

Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln
50 55 60

Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Lys Asn Thr
65 70 75 80

Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
85 90 95

Tyr Cys Ala Arg Glu Val Leu Asn Tyr Tyr Tyr Gly Met Phe Val Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 45

<211> 126

<212> PRT

<213> Homo sapiens

<400> 45

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Asp Ser Val Gln Pro
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
20 25 30

Ser Tyr Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
85 90 95

Tyr Cys Ala Lys Pro Tyr Tyr Asp Phe Trp Ser Gly Tyr Trp Thr Tyr
100 105 110

Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 46

<211> 120

<212> PRT

<213> Homo sapiens

<400> 46

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
20 25 30

Ser Tyr Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ser Ser Ile Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr
85 90 95

Tyr Cys Ala Arg Gly Ala Thr Gly Ala Ala Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 47

<211> 123

<212> PRT

<213> Homo sapiens

<400> 47

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Leu Thr Phe Ser
20 25 30

Ser Cys Ala Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
35 40 45

Trp Val Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Thr
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr
85 90 95

Tyr Cys Ala Lys Asp Arg Gly Thr Tyr Tyr Gly Tyr Tyr Phe Asp Leu
100 105 110

Trp Gly Arg Gly Met Leu Val Thr Val Ser Ser
115 120

<210> 48

<211> 127

<212> PRT

<213> Homo sapiens

<400> 48

Met Ala Gln Val Gln Leu Leu Gln Ser Arg Gly Gly Val Val Gln Pro

1	5	10	15
Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser	20	25	30
Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu	35	40	45
Trp Val Ala Val Ile Trp Phe Asp Gly Ser Lys Thr Tyr Tyr Ala Asp	50	55	60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr	65	70	75
Leu Tyr Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr	85	90	95
Tyr Cys Ala Arg Ala Pro Val Pro Ala Ala Asn Tyr Tyr Tyr Tyr Tyr	100	105	110
Tyr Thr Asp Val Trp Gly Lys Gly Thr Leu Val Thr Val Ser Ser	115	120	125

<210> 49

<211> 125

<212> PRT

<213> Homo sapiens

<400> 49

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Ile Gln Pro	1	5	10	15
Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser	20	25	30	
Ser Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu	35	40	45	
Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser	50	55	60	

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Ser Leu
65 70 75 80

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Tyr Arg Val Ala Ala Ala Asp Pro Asp Asp Trp Tyr Phe
100 105 110

Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 50

<211> 124

<212> PRT

<213> Homo sapiens

<400> 50

Met Ala Gln Val Gln Leu Leu Gln Ser Gly Gly Gly Val Ala Gln Pro
1 5 10 15

Gly Arg Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe Thr Phe Ser
20 25 30

Ser Tyr Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr
85 90 95

Tyr Cys Ala Thr Asn Thr Ile Phe Gly Leu Gly Tyr Gly Met Phe Val
100 105 110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 51

<211> 125

<212> PRT

<213> Homo sapiens

<400> 51

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser
20 25 30

Ser His Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ala Ile Ile Trp His Asp Gly Thr Asn Lys Tyr Phe Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr
85 90 95

Tyr Cys Ala Lys Asp Ser Val Arg Gly Val Ser Trp Tyr Tyr Gly Val
100 105 110

Asn Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 52

<211> 125

<212> PRT

<213> Homo sapiens

<400> 52

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro
1 5 10 15

Gly Gly Ser Leu Arg Val Ser Cys Ala Ala Ser Gly Phe Thr Val Ser
20 25 30

Asn Cys Val Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
35 40 45

Trp Val Ser Thr Ile Gly Ser Asp Asp Ala Ala Thr Tyr Tyr Ala Asp
50 55 60

Ser Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Ser
65 70 75 80

Pro Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr
85 90 95

Tyr Cys Ala Ser Pro Gly Pro Arg Ser Gly Ala Asn Trp Phe Ser Phe
100 105 110

Asp His Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 53

<211> 117

<212> PRT

<213> Homo sapiens

<400> 53

Met Ala Gln Val Gln Leu Leu Gln Ser Arg Gly Gly Val Val Gln Pro
1 5 10 15

Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Pro Gly Phe Thr Phe Ser
20 25 30

Gly Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu

35

40

45

Trp Val Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys His Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
85 90 95

Tyr Cys Ala Arg Gly Arg Val Phe Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 54

<211> 121

<212> PRT

<213> Homo sapiens

<400> 54

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Asp Val Val Gln Pro
1 5 10 15

Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
20 25 30

Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ala Val Ile Ser Phe Asn Gly Ile Val Gln Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asp Thr
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
85 90 95

Tyr Cys Ala Arg Glu Gly Arg Asp Asp Gln Tyr Phe Gln Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Pro Ser
115 120

<210> 55

<211> 128

<212> PRT

<213> Homo sapiens

<400> 55

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Glu Val Lys Lys Pro
1 5 10 15

Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Ser Phe Ser
20 25 30

Asn His Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
35 40 45

Trp Met Gly Gly Ile Ile Pro Val Phe Gly Val Ile Asn Tyr Gln Lys
50 55 60

Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Thr Thr Ala
65 70 75 80

Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Arg Ile Tyr Asp Phe Trp Ser Gly Tyr Tyr Glu Glu Leu
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 56

<211> 121

<212> PRT

<213> Homo sapiens

<400> 56

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Val Val Gln Pro
1 5 10 15

Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Met
20 25 30

Asn Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ala Val Ile Trp Ser Asp Arg Asn Asp Lys Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Ile Tyr
85 90 95

Tyr Cys Ala Lys Asp Lys Gln Glu Leu Gly Gly Met Asp Val Trp Gly
100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 57

<211> 122

<212> PRT

<213> Homo sapiens

<400> 57

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Val Val Gln Pro
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
20 25 30

Ser Tyr Ser Leu Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
35 40 45

Trp Val Ser Tyr Ile Ser Ser Tyr Ser Gly Thr Ile Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Gln
65 70 75 80

Leu Tyr Leu Gln Ile Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr
85 90 95

Tyr Cys Ala Lys Ser Ser Gly Ser Pro Pro Arg Tyr Phe Asp Leu Trp
100 105 110

Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 58

<211> 119

<212> PRT

<213> Homo sapiens

<400> 58

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser
20 25 30

Ser Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ala Val Ile Tyr Ser Gly Gly Asp Thr Tyr Tyr Ala Asp Ser
50 55 60

Val Lys Gly Arg Phe Thr Ile Ser Ser Asp Asn Ser Lys Asn Thr Leu
65 70 75 80

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Ser Trp Phe Gly Glu Ile Gly Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 59

<211> 123

<212> PRT

<213> Homo sapiens

<400> 59

Met Ala Gln Val Gln Leu Val Glu Leu Gly Gly Gly Leu Val Gln Ser
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Pro Gly Leu Thr Phe Ser
20 25 30

Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ala Tyr Ile Ser Ser Ser Ser Thr Ile Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser
65 70 75 80

Leu Tyr Leu Gln Met Thr Gly Leu Arg Ala Glu Asp Thr Ala Ile Tyr
85 90 95

Tyr Cys Ala Thr Tyr Ile Ala Thr Ser Asp Lys Arg Gly Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

115

120

<210> 60

<211> 117

<212> PRT

<213> Homo sapiens

<400> 60

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Lys Pro
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser
20 25 30

Asp Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ala Phe Ile Pro Tyr Asp Gly Ser Lys Glu Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr
85 90 95

Tyr Cys Met Lys Asp Gln Ala Arg Gly Ile Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 61

<211> 129

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<220>

<221> MISC_FEATURE

<222> (59) .. (59)

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> (102) .. (104)

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> (106) .. (115)

<223> Xaa represents position at which no consensus could be assigned

<400> 61

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Val Val Gln Pro
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
20 25 30

Ser Tyr Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Ala Val Ile Ser Ser Asp Gly Ser Xaa Thr Tyr Tyr Ala Asp
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr

85

90

95

Tyr Cys Ala Arg Asp Xaa Xaa Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 100 105 110

Xaa Xaa Xaa Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
 115 120 125

Ser

<210> 62

<211> 108

<212> PRT

<213> Homo sapiens

<400> 62

Ser Glu Leu Thr Gln Asp Ala Val Ser Val Ala Leu Gly Gln Thr Val
 1 5 10 15

Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser Trp
 20 25 30

Tyr Gln Gln Lys Pro Gly Gln Ala Pro Leu Leu Val Ile Tyr Gly Glu
 35 40 45

Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser
 50 55 60

Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu
 65 70 75 80

Ala Asp Tyr Tyr Cys His Ser Arg Asp Ser Ser Gly Thr His Leu Arg
 85 90 95

Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105

<210> 63

<211> 108

<212> PRT

<213> Homo sapiens

<400> 63

Asp Ile Val Met Thr Gln Ser Pro Pro Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr His Thr Ile Ser Arg
85 90 95

Thr Phe Gly Pro Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 64

<211> 109

<212> PRT

<213> Homo sapiens

<400> 64

Asp Val Val Met Thr Lys Ser Pro Gly Thr Leu Ser Leu Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Arg Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Arg Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln
65 70 75 80

Pro Glu Asp Phe Gly Thr Tyr Tyr Cys Gln Gln Leu Gly Ala Tyr Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Leu Asp Ile Lys Arg
100 105

<210> 65

<211> 107

<212> PRT

<213> Homo sapiens

<400> 65

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gly Ser Ser Ser Tyr Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Arg Pro Gly Lys Ala Arg Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Thr Tyr Asn Gly Trp Thr
85 90 95

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 66

<211> 108

<212> PRT

<213> Homo sapiens

<400> 66

Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
1 5 10 15

Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser
20 25 30

Trp Tyr Gln Gln Lys Arg Gly Gln Ala Pro Lys Leu Val Ile Tyr Gly
35 40 45

Lys Asn Ile Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser
50 55 60

Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp
65 70 75 80

Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val
85 90 95

Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
100 105

<210> 67

<211> 112

<212> PRT

<213> Homo sapiens

<400> 67

Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln Arg

1	5	10	15
Val Thr Ile Ser Cys Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly His	20	25	30
Asp Val His Trp Tyr Gln Gln Phe Pro Gly Thr Ala Pro Lys Leu Leu	35	40	45
Ile Phe Arg Thr Thr Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser	50	55	60
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln	65	70	75
Ala Glu Asp Glu Ala Glu Tyr Tyr Cys Gln Ser Tyr Asp Gly Arg Leu	85	90	95
Ser Gly Ser Trp Arg Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly	100	105	110

<210> 68

<211> 114

<212> PRT

<213> Homo sapiens

<400> 68

Glu Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly	1	5	10	15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Gly	20	25	30	
Ser Asn Asn Glu His Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Thr	35	40	45	
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val	50	55	60	
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr	65	70	75	80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Thr Ile Pro Phe Thr Phe Gly Pro Gly Thr Arg Val Lys Ile
100 105 110

Lys Arg

<210> 69

<211> 108

<212> PRT

<213> Homo sapiens

<400> 69

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Gly Asn Asp
20 25 30

Leu Val Trp Cys Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

Ser Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Gly Phe Pro Gln
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 70

<211> 110

<212> PRT

<213> Homo sapiens

<400> 70

Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln Ser
1 5 10 15

Val Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Asp Pro Lys Gln Ala Pro Lys Leu Met
35 40 45

Ile Tyr Glu Val Ser Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu Gln
65 70 75 80

Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ala Ala Pro Thr Gly Ile
85 90 95

Met Met Thr Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 71

<211> 109

<212> PRT

<213> Homo sapiens

<400> 71

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
20 25 30

Leu Ala Trp Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
 35 40 45

Ile Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln
 65 70 75 80

Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Phe Pro
 85 90 95

Thr Thr Phe Gly Gln Gly Thr Lys Leu Asn Ile Lys Arg
 100 105

<210> 72

<211> 114

<212> PRT

<213> Homo sapiens

<400> 72

Asp Val Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Glu
 1 5 10 15

Gln Arg Ala Thr Asn Thr Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

Pro Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Asp Tyr Tyr Cys His Gln
 85 90 95

Tyr Tyr Ser Val Pro Phe Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
100 105 110

Lys Arg

<210> 73

<211> 108

<212> PRT

<213> Homo sapiens

<400> 73

Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
1 5 10 15

Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Asn Ser Tyr Ala Asn
20 25 30

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly
35 40 45

Glu Asn Ser Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly
50 55 60

Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Thr Gln Ala Glu Asp
65 70 75 80

Glu Ala Asp Tyr Tyr Cys Ser Ser Arg Asp Ser Ser Gly Thr His Leu
85 90 95

Ser Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
100 105

<210> 74

<211> 114

<212> PRT

<213> Homo sapiens

<400> 74

Glu Ile Val Leu Thr Gln Ser Asp Pro Ser Ala Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Asn Thr Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30

Ser Asn Asn Lys Asn Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Ala Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
100 105 110

Lys Arg

<210> 75

<211> 109

<212> PRT

<213> Homo sapiens

<400> 75

Ser Val Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
1 5 10 15

Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser
20 25 30

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Leu Leu Val Ile Tyr Gly

35 40 45
 Glu Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser
 50 55 60
 Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp
 65 70 75 80
 Glu Ala Asp Tyr Tyr Cys His Ser Arg Asp Ser Ser Gly Thr His Leu
 85 90 95
 Arg Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
 100 105

<210> 76

<211> 107

<212> PRT

<213> Homo sapiens

<400> 76

Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
 1 5 10 15

Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Thr Tyr Tyr Ala Trp
 20 25 30

Tyr Gln Gln Lys Pro Gly Gln Ala Pro Ile Leu Val Ile Tyr Ala Lys
 35 40 45

Ser Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser
 50 55 60

Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu
 65 70 75 80

Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Arg Ser Asn Asn His Leu Leu
 85 90 95

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105

<210> 77

<211> 108

<212> PRT

<213> Homo sapiens

<400> 77

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Leu
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn Ser Ser Pro Ile
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 78

<211> 108

<212> PRT

<213> Homo sapiens

<400> 78

Glu Ile Val Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Phe Val Gly
1 5 10 15

Asp Arg Ile Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Tyr Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Ser Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn Ser Tyr Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 79

<211> 108

<212> PRT

<213> Homo sapiens

<400> 79

Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Ala Ser Leu Gly Gln Thr
1 5 10 15

Val Arg Ile Thr Cys Gln Gly Asp Ser Pro Arg Ser Tyr Tyr Ala Ser
20 25 30

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly
35 40 45

Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys
50 55 60

Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln Ser Glu Asp
65 70 75 80

Glu Ala Asp Tyr Gly Cys Ala Ala Trp Asp Asp Ser Leu Asn Gly Pro
85 90 95

Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 80

<211> 108

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<220>

<221> MISC_FEATURE

<222> (96)..(96)

<223> Xaa represents position at which no consensus could be assigned

<400> 80

Asp Ile Val Met Thr Gln Ser Pro Pro Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Gln Arg Val Thr Ile Thr Cys Arg Gly Ser Gln Ser Ile Ser Tyr Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Thr Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala
65 70 75 80

Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Gln Tyr Asp Ser Ser Pro Xaa
85 90 95

Thr Phe Gly Gly Gly Thr Lys Leu Thr Ile Lys Arg
100 105

<210> 81

<211> 117

<212> PRT

<213> Homo sapiens

<400> 81

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Phe Ala Gly Ala Ile Ala Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 82

<211> 117

<212> PRT

<213> Homo sapiens

<400> 82

Gln Val Gln Leu Gln Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Asp Leu Val Gly Ala Lys Gly Asn Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 83

<211> 117

<212> PRT

<213> Homo sapiens

<400> 83

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

35

40

45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp Phe Ala Gly Ala Ile Ala Tyr Trp Gly Gln Gly Thr Leu
 100 105 110

Val Thr Val Ser Ser
 115

<210> 84

<211> 123

<212> PRT

<213> Homo sapiens

<400> 84

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Ala Ile Ser Gly Ser Gly Asp Asn Thr Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr Val His
 65 70 75 80

Leu Gln Met Ala Gly Leu Arg Ala Glu Asp Thr Ala Leu Tyr Phe Cys
 85 90 95

Ala Lys Asp Gly Pro Ala Val Gly Asn Pro Gln Gly Tyr Phe Asp Phe
100 105 110

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 85

<211> 117

<212> PRT

<213> Homo sapiens

<400> 85

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ser Met Ser Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Leu Arg Gly Ala Leu Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 86

<211> 123

<212> PRT

<213> Homo sapiens

<400> 86

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
20 25 30

Tyr Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Ser Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Ile Ala Ala Arg Ser Gly Tyr Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 87

<211> 117

<212> PRT

<213> Homo sapiens

<400> 87

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Phe Ala Gly Ala Ile Ala Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 88

<211> 123

<212> PRT

<213> Homo sapiens

<400> 88

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Ser Gly Ser Gly Asp Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr Val His
65 70 75 80

Leu Gln Met Ala Gly Leu Arg Ala Glu Asp Thr Ala Leu Tyr Phe Cys
85 90 95

Ala Lys Asp Gly Pro Ala Val Gly Asn Pro Gln Gly Tyr Phe Asp Phe
100 105 110

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 89

<211> 117

<212> PRT

<213> Homo sapiens

<400> 89

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Asp Leu Pro Asp Ser Asn Gly Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser

115

<210> 90

<211> 123

<212> PRT

<213> Homo sapiens

<400> 90

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Ser Gly Ser Gly Asp Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr Val His
65 70 75 80

Leu Gln Met Ala Gly Leu Arg Ala Glu Asp Thr Ala Leu Tyr Phe Cys
85 90 95

Ala Lys Asp Gly Pro Ala Val Gly Asn Pro Gln Gly Tyr Phe Asp Phe
100 105 110

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 91

<211> 117

<212> PRT

<213> Homo sapiens

<400> 91

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val His Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ser Met Ser Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Thr Pro Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Leu Arg Gly Ala Leu Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 92

<211> 117

<212> PRT

<213> Homo sapiens

<400> 92

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp Phe Ala Gly Ala Ile Ala Tyr Trp Gly Gln Gly Thr Leu
 100 105 110

Val Thr Val Ser Ser
 115

<210> 93

<211> 117

<212> PRT

<213> Homo sapiens

<400> 93

Gln Val Gln Leu Gln Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Ala Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Lys Asp Leu Val Gly Ala Lys Gly Asn Trp Ala Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 94

<211> 117

<212> PRT

<213> Homo sapiens

<400> 94

Gln Val Gln Leu Gln Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Asp Leu Val Gly Ala Lys Gly Asn Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 95

<211> 123

<212> PRT

<213> Homo sapiens

<400> 95

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Ser Gly Ser Gly Asp Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr Val His
65 70 75 80

Leu Gln Met Ala Gly Leu Arg Ala Glu Asp Thr Ala Leu Tyr Phe Cys
85 90 95

Ala Lys Asp Gly Pro Glu Val Gly Asn Pro Gln Gly Tyr Phe Asp Phe
100 105 110

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 96

<211> 117

<212> PRT

<213> Homo sapiens

<400> 96

Gln Val Gln Leu Gln Gln Ser Gly Glu Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr

20

25

30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Lys Asp Leu Val Gly Ala Lys Gly Asn Trp Gly Gln Gly Thr Leu
 100 105 110

Val Thr Val Ser Ser
 115

<210> 97

<211> 117

<212> PRT

<213> Homo sapiens

<400> 97

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Ser Met Ser Tyr Asp Gly Asp Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Leu Arg Gly Ala Leu Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 98

<211> 103

<212> PRT

<213> Homo sapiens

<400> 98

Glu Ile Val Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser His Gly Ile Asn Asn Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys
100

<210> 99

<211> 103

<212> PRT

<213> Homo sapiens

<400> 99

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15

Glu Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
35 40 45

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Thr Tyr Leu Trp
85 90 95

Thr Phe Gly Gln Gly Thr Lys
100

<210> 100

<211> 103

<212> PRT

<213> Homo sapiens

<400> 100

Glu Ile Val Leu Thr Gln Ser Pro Ser Ile Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser His Gly Ile Asn Asn Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Trp
 85 90 95

Thr Phe Gly Gln Gly Thr Lys
 100

<210> 101

<211> 109

<212> PRT

<213> Homo sapiens

<400> 101

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
 20 25 30

Ser Asn Asn Lys Asp Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

Ser Pro Arg Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Asn Arg Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln His
 85 90 95

Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys
100 105

<210> 102

<211> 103

<212> PRT

<213> Homo sapiens

<400> 102

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Leu Pro
65 70 75 80

Glu Asp Phe Ala Ser Tyr Phe Cys Gln Gln Ala Ser Val Phe Pro Val
85 90 95

Thr Phe Gly Gly Gly Thr Lys
100

<210> 103

<211> 105

<212> PRT

<213> Homo sapiens

<400> 103

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly

1	5	10	15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp	20	25	30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile	35	40	45
Tyr Ala Ala Ser Ile Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly	50	55	60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro	65	70	75
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Ser Asn Pro Tyr Pro	85	90	95
Leu Leu Thr Phe Gly Gly Gly Thr Lys	100	105	

<210> 104

<211> 102

<212> PRT

<213> Homo sapiens

<400> 104

Glu Ile Val Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly	1	5	10	15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser His Gly Ile Asn Asn Tyr	20	25	30	
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile	35	40	45	
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly	50	55	60	
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro	65	70	75	80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Leu
85 90 95

Thr Phe Ala Arg Thr Lys
100

<210> 105

<211> 109

<212> PRT

<213> Homo sapiens

<400> 105

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30

Ser Asn Asn Lys Asp Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Arg Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Arg Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln His
85 90 95

Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys
100 105

<210> 106

<211> 103

<212> PRT

<213> Homo sapiens

<400> 106

Asp Val Val Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Ile Asn Arg Trp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Cys Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys His Gln Tyr Thr Thr Tyr Leu Trp
85 90 95

Thr Phe Gly Gln Gly Thr Lys
100

<210> 107

<211> 109

<212> PRT

<213> Homo sapiens

<400> 107

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30

Ser Asn Asn Lys Asp Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Arg Leu Leu Ile Pro Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Arg Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln His
85 90 95

Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys
100 105

<210> 108

<211> 102

<212> PRT

<213> Homo sapiens

<400> 108

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Leu Pro
65 70 75 80

Glu Asp Phe Ala Ser Tyr Phe Cys Gln Gln Ala Ser Val Phe Pro Val
85 90 95

Thr Phe Ala Arg Thr Lys
100

<210> 109

<211> 103

<212> PRT

<213> Homo sapiens

<400> 109

Glu Ile Cys Val Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser His Gly Ile Asn Asn Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys
100

<210> 110

<211> 103

<212> PRT

<213> Homo sapiens

<400> 110

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15

Glu Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp

20

25

30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
 35 40 45

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Thr Tyr Leu Trp
 85 90 95

Thr Phe Gly Gln Gly Thr Lys
 100

<210> 111

<211> 103

<212> PRT

<213> Homo sapiens

<400> 111

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1 5 10 15

Glu Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
 20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
 35 40 45

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Asp Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Thr Tyr Leu Trp
 85 90 95

Thr Phe Gly Gln Gly Thr Lys
100

<210> 112

<211> 109

<212> PRT

<213> Homo sapiens

<400> 112

Asp Ile Val Met Thr Lys Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30

Ser Lys Asn Lys Asp Tyr Leu Ala Trp Tyr Gln Lys Lys Pro Gly Gln
35 40 45

Ser Pro Arg Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Arg Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln His
85 90 95

Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys
100 105

<210> 113

<211> 103

<212> PRT

<213> Homo sapiens

<400> 113

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1 5 10 15

Glu Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
 20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
 35 40 45

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Thr Tyr Leu Trp
 85 90 95

Thr Phe Gly Gln Gly Thr Lys
 100

<210> 114

<211> 103

<212> PRT

<213> Homo sapiens

<400> 114

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
 20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Leu Pro
65 70 75 80

Glu Asp Phe Ala Ser Tyr Phe Cys Leu Gln Ala Ser Val Phe Pro Val
85 90 95

Thr Phe Gly Gly Gly Thr Lys
100

<210> 115

<211> 131

<212> PRT

<213> Artificial sequence

<220>

<223> Optimum ICS for human variable chains

<220>

<221> MISC_FEATURE

<222> 5, 6, 11, 13, 16, 23, 30, 31, 33, 35..37, 39, 51..53

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 55..57, 59..61, 79, 82, 83, 87, 88, 96, 98, 101, 103..120, 123

<223> Xaa represents position at which no consensus could be assigned

<400> 115

Gln Val Gln Leu Xaa Xaa Ser Gly Gly Gly Xaa Val Xaa Pro Gly Xaa
1 5 10 15

Ser Leu Arg Leu Ser Cys Xaa Ala Ser Gly Phe Thr Phe Xaa Xaa Tyr
20 25 30

Xaa Met Xaa Xaa Xaa Trp Xaa Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45

Trp Val Xaa Xaa Xaa Ser Xaa Xaa Xaa Gly Xaa Xaa Xaa Tyr Tyr Ala
50 55 60

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Xaa Asn
65 70 75 80

Thr Xaa Xaa Leu Gln Met Xaa Xaa Leu Arg Ala Glu Asp Thr Ala Xaa
85 90 95

Tyr Xaa Cys Ala Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
100 105 110

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Gly Xaa Gly Thr Leu Val Thr
115 120 125

Val Ser Ser
130

<210> 116

<211> 130

<212> PRT

<213> Artificial sequence

<220>

<223> Optimum ICS for mouse variable chains

<220>

<221> MISC_FEATURE

<222> 1..18, 20, 23, 24, 26..33, 35..37, 39..42, 44..46, 49..52

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 54..74, 76..81, 83, 86, 87, 89, 93, 95, 100, 102..119

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 122, 125, 126, 130

<223> Xaa represents position at which no consensus could be assigned

<400> 116

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Xaa Lys Xaa Ser Cys Xaa Xaa Ser Gly Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Met Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Leu Glu
35 40 45

Xaa Xaa Xaa Xaa Ile Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Xaa Xaa
65 70 75 80

Xaa Tyr Xaa Gln Met Xaa Xaa Leu Xaa Ser Glu Asp Xaa Ala Xaa Tyr
85 90 95

Tyr Cys Ala Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
100 105 110

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Gly Xaa Gly Thr Xaa Xaa Thr Val
115 120 125

Ser Xaa
130

<210> 117

<211> 130

<212> PRT

<213> Artificial sequence

<220>

<223> Optimum ICS extrapolated between man and mouse

<220>

<221> MISC_FEATURE

<222> 1.. 20, 23, 24, 27..33, 35..37, 39..42, 44..46, 49..74

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 76..83, 86, 87, 89, 93, 95, 97, 100, 102..119

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 122, 125, 126, 130

<223> Xaa represents position at which no consensus could be assigned

<400> 117

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Xaa Xaa Xaa Ser Cys Xaa Xaa Ser Gly Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Met Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Leu Glu
35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Xaa Xaa
65 70 75 80

Xaa Xaa Xaa Gln Met Xaa Xaa Leu Xaa Ser Glu Asp Xaa Ala Xaa Tyr
85 90 95

Xaa Cys Ala Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
100 105 110

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Gly Xaa Gly Thr Xaa Xaa Thr Val
115 120 125

Ser Xaa
130

<210> 118

<211> 115

<212> PRT

<213> Artificial sequence

<220>

<223> Optimum ICS for human variable chains

<220>

<221> MISC_FEATURE

<222> 1..4, 6, 7, 9..15, 17..20, 22, 24..40, 44, 45, 48, 49, 51..53

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 55..62, 64..68, 72, 75..78, 82..87, 89, 91, 93, 95..113

<223> Xaa represents position at which no consensus could be assigned

<400> 118

Xaa Xaa Xaa Xaa Thr Xaa Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly
1 5 10 15

Xaa Xaa Xaa Xaa Ile Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Tyr Gln Xaa Xaa Pro Gly Xaa
35 40 45

Xaa Pro Xaa Xaa Xaa Ile Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ser Gly Xaa
50 55 60

Xaa Xaa Xaa Xaa Ser Gly Ser Xaa Ser Gly Xaa Xaa Xaa Xaa Leu Thr
65 70 75 80

Ile Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Ala Xaa Tyr Xaa Cys Xaa Xaa
85 90 95

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
100 105 110

Xaa Thr Lys
115

<210> 119

<211> 115

<212> PRT

<213> Artificial sequence

<220>

<223> Optimum ICS for mouse variable chains

<220>

<221> MISC_FEATURE

<222> 3..6, 8, 9..15, 17..22, 24, 25, 27..40, 42..62, 64, 66

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 69, 72, 74..80, 82..87, 89..91, 93, 95..108, 110, 112

<223> Xaa represents position at which no consensus could be assigned

<400> 119

Asp Ile Xaa Xaa Xaa Gln Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Xaa
 50 55 60

Pro Xaa Arg Phe Xaa Gly Ser Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 65 70 75 80

Ile Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Tyr Xaa Cys Xaa Xaa
 85 90 95

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Thr Xaa Gly Xaa
 100 105 110

Gly Thr Lys
 115

<210> 120

<211> 115

<212> PRT

<213> Artificial sequence

<220>

<223> Optimum ICS extrapolated between man and mouse

<220>

<221> MISC_FEATURE

<222> 1.. 7, 9..15, 17..22, 24..40, 42..63

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 64..69, 72, 74..80, 82..87, 89..91, 93, 95..113

<223> Xaa represents position at which no consensus could be assigned

<400> 120

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Xaa Xaa
35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Xaa
50 55 60

Xaa Xaa Xaa Xaa Xaa Gly Ser Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa
65 70 75 80

Ile Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Tyr Xaa Cys Xaa Xaa
85 90 95

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
100 105 110

Xaa Thr Lys
115

<210> 121

<211> 27

<212> DNA

<213> Artificial sequence

<220>

<223> Primer

<400> 121

cagggatccg agcgcggcct ggtgaag

27

<210> 122
<211> 27
<212> DNA
<213> Artificial sequence

<220>

<223> Primer

<400> 122
caggaattca tcgttgggcc agatctg

27

<210> 123
<211> 27
<212> DNA
<213> Artificial sequence

<220>

<223> Primer

<400> 123
cagggatccg aagcccttca gcggcca

27

<210> 124
<211> 27
<212> DNA
<213> Artificial sequence

<220>

<223> Primer

<400> 124
caggaattcc gagatctgag tggccat

27